

francolin but on literature survey, I identified them to be Grey Francolins *Francolinus pondicerianus* (Grimmett *et al.* 1999: POCKET GUIDE TO THE BIRDS OF THE INDIAN SUBCONTINENT. The

Helm Guide Series. London. 384 pp.). These Grey Francolins *Francolinus pondicerianus* had an unusually dark plumage due to presence of excessive melanin.

8. RECENT OCCURRENCE OF THE BROWN-HEADED BARBET *MEGALAIMA ZEYLANICA* GMELIN 1788 AND OTHER DRY COUNTRY SPECIES IN PERIYAR TIGER RESERVE, KERALA, SOUTHERN INDIA – ARE THESE RELATED TO ECOLOGICAL CHANGE?

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Periyar Tiger Reserve, a major part of the Cardamom Hill Reserve, is located on the wet zone of the Western Ghats in Kerala, southern India. The area harbours a rich bird fauna which has been studied periodically since the 1800s (Elwes 1870; Ali 1935-37; Berlioz 1940; Nichols 1944-45; Nair *et al.* 1985; Robertson and Jackson 1992; Srivastava *et al.* 1993; Santharam 1996; Veeramani *et al.* 2005; Elamon 2006; Sugathan 2008). The Brown-headed Barbet *Megalaima zeylanica*, which is endemic to the Indian subcontinent (Rasmussen and Anderton 2005), has not been previously reported from the Reserve. This note reports the occurrence of the Brown-headed Barbet and other dry country species sighted at about 700 m elevation in the Periyar Tiger Reserve in recent years.

Ali (1935-37), Robertson and Jackson (1992), Nair *et al.* (1985) and Srivastava *et al.* (1993) who have documented the avifauna of Periyar, and Yahya (1988) who studied the biology of barbets in the Reserve from 1977-1980 recorded only two species of barbets, namely White-cheeked Barbet *Megalaima viridis* and Crimson-fronted Barbet *Megalaima rubricapilla*. Prasad (1990) who studied the avian abundance in Idukki Wildlife Sanctuary, around the Hydroelectric area, also on the Western Ghats about 50 km north of Periyar, recorded same two species, and a third species, the Crimson-breasted Barbet *M. laemocephala*. Nichols (1944-1945) also did not record the Brown-headed Barbet in Periyar.

While looking for birds on the Anchuruly road in Periyar on February 21, 2007, we came across two Brown-headed Barbets on a fig tree near the forest edge, behind the Anavachal guest house at about 700 m elevation. The vegetation is moist deciduous forest with teak as the dominant tree species and frequently disturbed by tourists, firewood collectors and cattle grazing. The unmistakable call of the bird attracted our attention. VJZ who worked as a research officer at Periyar from 1991-97, lived at the Anavachal guest house from May to December 1991 and frequently visited the area while working in Periyar, had never previously seen the species in this area or anywhere in the tiger reserve.

The Brown-headed Barbet occurs mostly in the rain shadow region of the Western Ghats in Tamil Nadu and Karnataka, in the deciduous biotope, which include the areas of these states bordering Kerala (VJZ pers.obs.). Little information is available on the status and distribution of this species in Kerala. During the Travancore-Cochin ornithological survey, Ali (1935-37, 1984) noted the bird at Thattekad and collected a specimen from Aramboli near the Tamil Nadu border. However, Ali (1984) did not mention Thattekad as a locality for this bird and wrote that the species was local and apparently confined to the deciduous low country in southern Kerala only. According to Whistler and Kinnear (1935) two races of the Brown-headed Barbet occurred in Kerala, *M.z. zeylanica* in the south and *M.z. inornata* in the north, as evidenced by specimens in the British Museum. But Abdulali (1971) did not admit *M.z. zeylanica* in the Indian mainland. A recently published book, BIRDS OF KERALA (Ali 1999) recorded two races of the Brown-headed Barbet in Kerala. There are recent sight records of the Brown-headed Barbet at Parambikulam and Chinnar Wildlife sanctuaries, Malampuzha, Elivalmala and Palakkad gap, all near the Tamil Nadu border (Jafer Palot pers. comm.). The species is fairly common in Tamil Nadu, adjoining Periyar in the east, at lower elevations. There is a specimen of the species in the Smithsonian Museum collected at Vannathiparai (450 m) in Tamil Nadu, about 12 km away from the site of our observation.

The occurrence of the Brown-headed Barbet within Periyar near Anavachal, which is about 2 km away from the Tamil Nadu border, at about 700 m, raises interesting questions. The species seems to have moved from a dry habitat at lower elevation to a higher elevation where the habitat has become drier and thus more suitable for the species. This illustrates encroachment of a dry habitat, lower elevation species to a higher elevation. The extension in range may be related to the changes in vegetation structure and perhaps consequent changes in weather in the peripheral areas of the Reserve in the Thekkady range.

It is worth mentioning that three other dry country species, the Eurasian Collared Dove *Streptopelia decaocto*,

Pied Cuckoo *Clamator jacobinus*, and the Asian Koel *Eudynamis scolopaceus* found at lower elevations have also been recorded by Srivastava *et al.* (1993) at Periyar. These were listed as uncommon/rare without any details. Since these are common birds and not recorded by Ali (1935-37), it seems that more dry country species from lower elevations have been moving to Periyar in recent years, which is probably related to changing environmental conditions, as evidenced by the drying of the marshes around Anavachal and the recent increase in temperature in the area. This information is reviewed below for these species along with anecdotal information from more recent years.

Eurasian Collared Dove *Streptopelia decaocto* (Frisvoldski): Ali (1984, 1999) observed this species only near Kanyakumari (now in Tamil Nadu) in scrub and boulder country with scattered cultivation. VJZ (pers. obs.) sighted two individuals near the Anavachal dormitory in 1992, possibly moving up from the lower camp area in Tamil Nadu, where they are fairly common.

Pied Cuckoo *Clamator jacobinus* (Boddaert): This is a deciduous low country species that occupies lightly wooded and babul shrub habitat (Ali 1984). A fledging cuckoo was found by VJZ being fed by a group of Jungle Babbler *Turdoides striata* in November 2001 near the boat landing across the Aranya Nivas hotel in Periyar. This cuckoo is common in the neighbouring Tamil Nadu in dry thorn scrub habitat at lower elevation, where it often parasitized the Yellow-billed Babbler *Turdoides affinis* in September/October (VJZ pers. obs.).

Asian Koel *Eudynamis scolopaceus* (Linnaeus): This

is a fairly common species according to Ali (1984), occurring chiefly at lower elevations in Tamil Nadu. On February 22, 2007, we observed a male and a female feeding on the fruits of *Persea macrantha* on the trail connecting Anchuruly with the Thekkady checkpost. The presence and absence of Koel is evidently governed mostly by the number of its hosts, which are primarily crows (Ali 1984). Since the species is a frugivore, it could likely be a competitor for the endemic frugivores like the hornbills. Vijayakumar (1994) has observed the territorial behaviour of the Koel, which was aggressive to other frugivorous birds like barbets.

In summary, the recent occurrences of several dry country bird species in Periyar, appear to be related to an ongoing drying of the landscape possibly due to climate change confounded by habitat degradation, caused by the increase in tourism/human activity. A regular monitoring of the species composition and population density of birds at key elevations within Periyar, and especially in its border areas would be helpful in evaluating changes occurring in future.

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